MFF parachutists in free-fall

Low-velocity airdrop (heavy drop)

THE AIRDROP CERTIFICATION PROCESS

Sandy White and Nora Campbell

New materiel destined for airborne units requires airdrop certification, which is the process that ensures that an item is suitable for use in an airdrop environment. Some items are certified prior to fielding while others are certified after fielding. Certification is the result of testing by the U.S. Army Test and Evaluation Command's (ATEC) Operational Test Command's Airborne and Special Operations Test Directorate (ABNSOTD) at Fort Bragg, NC.

Airdrop certification becomes official when airdrop rigging procedures are published in the appropriate training manual. Approval of the procedures results from operational airdrop testing conducted to validate draft rigging procedures, which are provided by the airdrop materiel developer at the Soldier Systems Command in Natick, MA. When required, the Developmental Test Command (DTC) at Yuma Proving Ground, AZ, also a subordinate command of ATEC, conducts developmental airdrop testing.

The process that a program manager (PM) uses to obtain an airdrop certification for an item depends on the item under development. For example, if the item is to be worn by the soldier in conjunction with either a static line (SL) or military free-fall (MFF) parachute, it must not interfere with the parachute's deployment or pose a safety or health hazard.

In the case of SL and MFF, the airdrop item will require airdrop suitability evaluation. A safety recommendation for airborne usage is submitted to the DTC safety release authority. DTC then provides a safety release to the ABNSOTD so that operational airdrop testing can be conducted with representative user soldiers. The subsequent airdrop test report validates the item's rigging procedures and is published in either Field Manual 57-220 (*Static Line Parachuting Techniques and Training*) for SL personnel airdrops or Field Manual 31-19 (*Military Free-Fall Parachuting Tactics, Techniques, and Procedures*) for MFF operations.

Relative to a new vehicle or other heavy equipment, the PM may structure the acquisition strategy to field the item without airdrop certification if it is not specifically required in the Operational Requirements Document (ORD). The PM accepts the risk that the item may not be airdrop suitable without further design changes. If the item is destined for issue to airborne units, the PM should program funds for the item to

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be airdrop certified once the design is finalized, and have it certified during programmed operational testing before fielding to airborne units.

Not all ORDs are cross-walked with the Basis of Issue Plan (BOIP) that makes airdrop requirements a part of the overall program. The U.S. Army Training and Doctrine Command (TRADOC) has recognized that many items arriving at airborne units require airdrop certification in varying user-desired load configurations. Therefore, TRADOC sponsors a Force Development Test and Experimentation Program with the ABNSOTD to provide airdrop certification for items fielded to the XVIII Airborne Corps.

Personnel airdrop testing conducted by the ABNSOTD involves evaluating the item for airdrop suitability, survivability, and effectiveness. A common misunderstanding regarding personnel airdrop testing is that the certification only means that an item is safe to jump. In addition to being evaluated for safety, the item is also evaluated for operational effectiveness after the airdrop. If it does not survive the airdrop or will not function as designed after the airdrop, it is useless to the paratrooper. For example, if a new radio is carried inside the paratrooper's rucksack during an airdrop, and if it cannot withstand an impact of 22 feet per second, it merely adds unnecessary weight to the jumper's combat load. For this reason, PMs should not plan on having their items airdrop certified until all design improvements have been made and the item is production representative. This is also true of heavy drop items. If the crew cannot quickly derig the new vehicle or heavy equipment and move it off the drop zone, it can easily become a target rather than an asset.

Regardless of the item being developed, if the ORD does not specify airdrop certification, the PM should cross-walk the ORD with the BOIP prior to development. If the item is destined for airborne or special operations deployment, combat developers should determine airdrop certification requirements. The PM's early involvement with ATEC is also highly recommended so that the full scope of testing requirements can be commonly understood. Requirements can then be more realistically integrated into the PM's milestone schedule.

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